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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,488	03/29/2001	Youssef El-Shoubary	20844	5295
210	7590	12/01/2003	EXAMINER	
MERCK AND CO INC P O BOX 2000 RAHWAY, NJ 070650907			JOHNSON, EDWARD M	
			ART UNIT	PAPER NUMBER

1754

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,488

Applicant(s)

EL-SHOUBARY ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,10,20,22 and 24-35 is/are pending in the application.
4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,20,22 and 26-35 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Abler US 5,496,785.

Regarding claim 1, Abler '785 discloses a dual impregnated activated carbon suitable for filtering contaminants (abstract) comprising activated carbon and group 6-12 salts including copper chloride (see column 2, line 56) in an amount of at least 0.5, or more specifically 1 to 10 weight percent (see paragraph bridging columns 2-3).

Regarding claim 2, Abler '785 discloses wood, coal, coconut, and organic polymers (see column 2, lines 19-21).

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Regarding claim 5, Abler '785 discloses potassium permanganate also may be included (see column 1, lines 30-32).

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Peng US 5,529,970.

Regarding claim 1, Peng '970 discloses an adsorbent comprising a submicron support (see column 3, lines 15-16) and at least 15 weight percent cupric chloride (see column 3, lines 46-48).

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-226389 (English abstract also attached).

Regarding claim 1, JP '389 discloses a high surface area (see Table) adsorbent comprising 10-35 mass % of copper chloride (see abstract) and PVA (see column 15, top).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peng '970.

Peng fails to disclose activated or graphite carbon as support.

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use activated carbon as support in the cupric chloride comprising adsorbent of Peng because Peng discloses prior art supports of activated or graphite carbon for copper halide (see column 1, lines 57-67) and that supports are well known in the prior art (see column 5, lines 14-16).

7. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abler '785 as applied to claims 1 and 5 above, and further in view of Kienow et al. US 6,352,956.

Kienow '956 discloses removal of dioxins, furans, and heavy metals (see column 1, lines 25-28).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to intend to use the removal of dioxins, furans, and heavy metals (see column 1, lines 25-28) of Kienow with the adsorbent of Abler because Abler discloses his compositions suitable for filtering gaseous contaminants (see abstract), and Kienow discloses his calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as

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reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

Allowable Subject Matter

8. Claims 10, 20, 22, and 26-35 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: An adsorption powder having the percentages of compounds including the percentages of carbon powder, cupric chloride, calcium hydroxide, and/or potassium iodide of the instant claims 6, 10, 12, 20, 22, and 26-33 would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

10. Applicant's arguments filed 7/28/03 have been fully considered but they are not persuasive.

The objections to the specification and drawings have been withdrawn in view of Applicant's amendment.

It is argued that regarding the Examiner's rejection of claim 2... stand or fall together. This is not persuasive because "about 10.1" is considered to include a value of 10, which is disclosed and therefore anticipated by the cited reference. Also, Abler '785 discloses potassium permanganate also may be included (see column 1, lines 30-32).

It is argued that responsive to the rejection of Claim 1... with the Office Action. This is not persuasive because JP '389 discloses PVA and alumina (see column 15, top), which together are considered sufficient evidence of anticipation, since PVA, or poly(vinyl alcohol), is an organic (i.e. carbon based) material. Applicant, however, is invited to submit a translation of the reference in rebuttal, if Applicant desires.

It is argued that responsive to the rejection of claim 2. This is not persuasive because the Examiner is not required to support a proposition by affidavit under 35 USC §103(a), and because the Examiner's has taken evidence from the reference to support a rationale of obviousness and motivation to those skilled in the art (see above). Further, Applicant appears to admit that both cupric and cuprous chloride are disclosed, arguing only that cupric chloride may later be reduced. This appears to suggest that before any reduction, the claimed compound is disclosed. And, in any case, original claim 4 and the instant specification demonstrate that the claims do not define "cupric chloride" as having any particular molecular formula aside from containing copper and chloride atoms.

It is argued that responsive to the rejection of claims 24 and 25... recited in claim 1. This is not persuasive because Kienow is not relied upon for a disclosure of cupric chloride,

which is disclosed in the primary reference, Abler. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

It is argued that one of ordinary skill in the art would not have combined the references... 'activated carbon'. This is not persuasive because Kienow is not considered to "teach away" from the claimed invention, as Applicant suggests, because Kienow does not teach that any particular element of the claimed invention should be avoided. Further, "activated carbon" is not the Examiner's showing of "the only motivation", as Applicant suggests. Rather, the Examiner has stated that Abler discloses his compositions suitable for filtering gaseous contaminants (see abstract), and Kienow discloses his calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

It is argued that it should be noted... "exhaust gas cleaning systems". This is not persuasive because the Examiner is not required under 35 USC 103(a) to produce an affidavit and because Applicant appears to admit that "adsorption of organic

compounds..." is an intended use, and recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ
November 20, 2003


STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700